IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

PACIFIC BIOSCIENCES OF CALIFORNIA, INC., Plaintiff, v. OXFORD NANOPORE TECHNOLOGIES, INC., and OXFORD NANOPORE TECHNOLOGIES, LTD., Defendants.	)	C.A. No. 17-cv-275-LPS C.A. No. 17-cv-1353-LPS **JURY TRIAL DEMANDED**

JOINT [PROPOSED] FINAL JURY INSTRUCTIONS

TABLE OF CONTENTS

Plaintiff Pacific Biosciences of California, Inc. ("PacBio") and defendants Oxford Nanopore Technologies, Inc. and Oxford Nanopore Technologies, Ltd. ("ONT" or "Oxford") (hereafter, PacBio and Oxford may be referred to together as the "Parties") hereby submit the following Joint [Proposed] Final Jury Instructions for the trial in this matter. The titles for each instruction identify whether that particular instruction is submitted as a "Joint" or "Contested" instruction. If an instruction is "Contested," then there is an additional designation specifying whether its "PacBio's Instruction" or "Oxford's Instruction." Where the Parties agree on the inclusion of an instruction and are generally in agreement on its wording but there remains some dispute over the exact language, differential color highlighting is used. Specifically, text highlighted in yellow is text that PacBio proposes adding to the instructions to which Oxford does not agree. Text highlighted in blue is text that Oxford proposes adding to the instructions to which PacBio does not agree.

The Parties reserve all rights to supplement, amend, or otherwise modify these proposed instructions as appropriate, including but not limited to the right to revise their positions on the proposed instructions in response to future rulings by the Court or the evidence as it is admitted at trial. The parties submit these proposed jury instructions without waiver of their position that the opposing party has not presented sufficient evidence to submit some or all of its affirmative claims, damages theories, or affirmative defenses to the jury, and without waiver of arguments presented in motions *in limine* or during claim construction.

1. GENERAL INSTRUCTIONS

1.1. [JOINT] INTRODUCTION

Members of the jury, now it is time for me to instruct you about the law that you must follow in deciding this case.

I will start by explaining your duties and the general rules that apply in every civil case. Then I will explain some rules that you must use in evaluating particular testimony and evidence. Then I will explain the positions of the parties and the law you will apply in this case. Finally, I will explain the rules that you must follow during your deliberations in the jury room, and the possible verdicts that you may return.

Please listen very carefully to everything I say. In following my instructions, you must follow all of them and not single out some and ignore others. They are all important.

You will have a written copy of these instructions with you in the jury room for your reference during your deliberations. You will also have a verdict form, which will list the questions that you must answer to decide this case.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 1, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323; Final Jury Instructions at 1, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719.

1.2. [JOINT] JURORS' DUTIES

You have two main duties as jurors. The first one is to decide what the facts are from the evidence that you saw and heard here in court. Deciding what the facts are is your job, not mine, and nothing that I have said or done during this trial was meant to influence your decision about the facts in any way.

Your second duty is to take the law that I give you, apply it to the facts, and decide, under the appropriate burden of proof, which party should prevail on each of the issues presented. It is my job to instruct you about the law, and you are bound by the oath that you took at the beginning of the trial to follow the instructions that I give you, even if you personally disagree with them. This includes the instructions that I gave you before and during the trial, and these instructions. All of the instructions are important, and you should consider them together as a whole.

Perform these duties fairly. Do not let any bias, sympathy, or prejudice that you may feel toward one side or the other influence your decision in any way.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 2, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323; Final Jury Instructions at 2, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719.

1.3. [JOINT] EVIDENCE DEFINED

The evidence from which you are to find the facts consists of the following:

1. The testimony of the witnesses;
2. Documents and other things received as exhibits;
3. Any facts that are stipulated--that is, formally agreed to by the parties; and
4. Any facts that are judicially noticed—that is, facts I say you must accept as true even without other evidence.

The following things are not evidence:

5. Statements, arguments, and questions of the lawyers for the parties in this case;
6. Objections by lawyers;
7. Any testimony I tell you to disregard; and
8. Anything you may see or hear about this case outside the courtroom.

You must make your decision based only on the evidence that you saw and heard in court. Do not let rumors, suspicions, or anything else that you may have seen or heard outside of court influence your decision in any way.

You should use your common sense in weighing the evidence. Consider it in light of your everyday experience with people and events, and give it whatever weight you believe it deserves. If your experience tells you that certain evidence reasonably leads to a conclusion, you are free to reach that conclusion.

There are rules that control what can be received into evidence. When a lawyer asked a question or offered an exhibit into evidence, and a lawyer on the other side thought that it was not permitted by the rules of evidence, that lawyer may have objected. This simply means that the

lawyer requested that I make a decision on a particular rule of evidence. You should not be influenced by the fact that an objection was made. Objections to questions are not evidence. Lawyers have an obligation to their clients to make objections when they believe that evidence being offered is improper under the rules of evidence. You should not be influenced by the objection or by the court's ruling on it. If the objection was sustained, ignore the question. If it was overruled, treat the answer like any other. If you were instructed that some item of evidence was received for a limited purpose only, you must follow that instruction.

Also, certain testimony or other evidence may have been ordered struck from the record and you were instructed to disregard this evidence. Do not consider any testimony or other evidence that was struck or excluded. Do not speculate about what a witness might have said or what an exhibit might have shown.

Authority:

Plaintiff's Authority: Third Circuit Model Jury Instructions No. 1.5 (2017) (modified to past tense).

1.4. [JOINT] CONSIDERATION OF EVIDENCE

You should use your common sense in weighing the evidence. Consider the evidence in light of your everyday experience with people and events, and give it whatever weight you believe it deserves. If your experience tells you that certain evidence reasonably leads to a conclusion, you are free to reach that conclusion.

Authorities:

Final Jury Instructions at 4, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323; Final Jury Instructions at 7, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719.

1.5. [JOINT] DIRECT AND CIRCUMSTANTIAL EVIDENCE

There are two types of evidence that you may use in reaching your verdict. One type of evidence is called "direct evidence." An example of "direct evidence" is when a witness testifies about something that the witness knows through his own senses—something the witness has seen, felt, touched, heard, or did. If a witness testified that he saw it raining outside, and you believed him, that would be direct evidence that it was raining. Another form of direct evidence is an exhibit where the fact to be proved is its existence or current condition.

The other type of evidence is circumstantial evidence. "Circumstantial evidence" is proof of one or more facts from which you could find another fact. If someone walked into the courtroom wearing a raincoat covered with drops of water and carrying a wet umbrella that would be circumstantial evidence from which you could conclude that it was raining.

You should consider both kinds of evidence that were presented to you. The law makes no distinction in the weight to be given to either direct or circumstantial evidence. You are to decide how much weight to give any evidence.

Authority:

Plaintiff's Authority: Third Circuit Model Jury Instructions No. 1.6 (2017) (modified to past tense).

1.6. [JOINT] CREDIBILITY OF WITNESSES

In deciding what the facts are, you may have to decide what testimony you believe and what testimony you do not believe. You are the sole judges of the credibility of the witnesses. "Credibility" means whether a witness is worthy of belief. You may believe everything a witness said or only part of it or none of it. In deciding what to believe, you may consider a number of factors, including the following:

1. the opportunity and ability of the witness to see or hear or know the things the witness testifies to;
2. the quality of the witness's understanding and memory;
3. the witness's manner while testifying;
4. whether the witness has an interest in the outcome of the case or any motive, bias, or prejudice;
5. whether the witness is contradicted by anything the witness said or wrote before trial or by other evidence;
6. how reasonable the witness's testimony is when considered in the light of other evidence that you believe; and
7. any other factors that bear on believability.

Authority:

Plaintiff's Authority: Third Circuit Model Jury Instructions No. 1.7 (2017).

1.7. [JOINT] EXPERT WITNESSES

During the trial, you heard testimony from expert witnesses. When knowledge of technical subject matter may be helpful to the jury, a person who has special training or experience in that technical field—called an expert witness—is permitted to state his or her opinion on those technical matters. However, you are not required to accept that opinion. As with any other witness, it is up to you to decide whether to rely upon it.

In weighing expert testimony, you may consider the expert's qualifications, the reasons for the expert's opinions, and the reliability of the information supporting the expert's opinions, as well as the factors I have previously mentioned for weighing testimony of any other witness. Expert testimony should receive whatever weight and credit you think appropriate, given all the other evidence in the case. You are free to accept or reject the testimony of experts, just as with any other witness.

Authority:

Plaintiff's Authority: Final Jury Instructions at 7, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA, D.I. 323 (D. Del. Sept. 22, 2017), ECF No. 323.

1.8. [JOINT] EXHIBITS AND DEMONSTRATIVE EXHIBITS

During the course of the trial, you have seen many exhibits. Many of these exhibits were admitted as evidence. Some of these admitted exhibits or portions of them have been displayed for you on a screen and you will have these admitted exhibits, whether displayed on a screen or not, in the jury room during your deliberations.

There are other exhibits (including charts and animations presented by attorneys and witnesses) that were offered to help illustrate the testimony of the various witnesses. These illustrations, called "demonstrative exhibits," have not been admitted as evidence, are not evidence, and should not be considered as evidence. Rather, it is the underlying testimony of the witness that you heard when you saw the demonstrative exhibits that is the evidence in this case.

Authority:

Plaintiff's Authority: Final Jury Instructions at 8, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA, D.I. 323 (D. Del. Sept. 22, 2017), ECF No. 323.

1.9. [JOINT] USE OF NOTES

You may use notes taken during trial to assist your memory. However, you should use caution in consulting your notes. There is always a tendency to attach undue importance to matters that you have written down. Some testimony that you may consider unimportant at the time presented, and thus not written down, may take on greater importance later on in the trial in light of all the evidence presented. Therefore, you are instructed that your notes are only a tool to aid your own individual memory, and you should not compare notes with other jurors in determining the content of any testimony or in evaluating the importance of any evidence. Your notes are not evidence, and are by no means a complete outline of the proceedings or a list of the highlights of the trial. Above all, your memory should be the greatest asset when it comes time to deliberate and render a decision in this case.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 9, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323; Final Jury Instructions at 5, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719.

2. [JOINT] THE PARTIES AND THEIR CONTENTIONS

PacBio alleges that Oxford infringes the '400, '323, '056, and '929 Patents. The patents in this lawsuit relate to sequencing a nucleic acid template, or determining a nucleotide sequence of a region of interest in a polynucleotide, using nanopores.

Oxford denies that it has infringed the asserted claims of these patents and contends that the asserted claims are invalid.

In this case, you must decide the issues according to the instructions I give you. In general, the following are the issues you must decide:

a. Whether PacBio has proven by a preponderance of the evidence that Oxford has infringed and/or does infringe any one or more of the asserted claims, which are claims 1, 4, or 15 of the '400 Patent, claims 1, 4, or 18 of the '323 Patent, claims 1, 2, or 12 of the '056 Patent, or claims 1, 2, or 10 of the '929 Patent;

b. Whether Oxford has proven by clear and convincing evidence that any one or more of the asserted claims are invalid;

c. Whether PacBio has proven by a preponderance of the evidence that Oxford's infringement of one or more of the valid asserted claims was willful;

d. What amount of damages that PacBio has proven by a preponderance of the evidence would compensate PacBio for any infringement you determine Oxford has made of PacBio's valid patents.

Authorities:

Plaintiff's Authority: Final Jury Instructions, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this

case); Final Jury Instructions, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

3. [JOINT] BURDENS OF PROOF

For each issue in this case, either PacBio or Oxford bears the burden of proof, which means that it bears the burden of persuading you to find in its favor. In a patent case such as this, there are two different burdens of proof. The first is called "preponderance of the evidence." The second is called "clear and convincing evidence."

For any issue on which a party bears the burden of proof by a preponderance of the evidence, that party has carried its burden if you find that what the party claims is more likely true than not, when considered in light of all of the evidence. To put it differently, if you were to put each party's evidence on the opposite sides of a scale, the evidence supporting the party with the burden of proof would have to make the scales tip somewhat on the side of that party.

Here, PacBio has alleged that Oxford infringes or has infringed the asserted claims of the '400 Patent, '323 Patent, '056 Patent, and the '929 Patent, that Oxford's infringement of any valid claim was willful, and that it is entitled to damages to compensate it for any infringement, and so has the burden of proving these allegations by a preponderance of the evidence.

For any issue on which a party bears the burden of proof by clear and convincing evidence, that party has carried its burden if you find that the party with the burden has caused you to have an abiding conviction that the truth of that party's factual contention is highly probable when considered in light of all of the evidence. Proof by clear and convincing evidence is a higher burden than proof by a preponderance of the evidence.

Here, Oxford has alleged that the asserted claims of the '400 Patent, '323 Patent, '056 Patent, and the '929 Patent are invalid and so has the burden of proving these allegations by clear and convincing evidence.

Authority:

Plaintiff's Authority: Final Jury Instructions at 12, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case).

4. PATENT CLAIMS

4.1. [JOINT] THE ROLE OF CLAIMS IN THE PATENT

Before you can decide the issues in this case, you will need to understand the role of patent "claims." The patent claims are the numbered sentences at the end of each patent. The claims are important because the words of a claim define the scope of the patent right. The figures and text in the rest of the patent provide a description and/or examples of the invention and provide a context for the claims, but the claims define the extent of the patent's coverage. Each claim may cover more or less than another claim. Therefore, what a patent covers depends, in turn, on what each of its claims covers.

Authority:

Plaintiff's Authority: Final Jury Instructions at 13, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323.

4.2. [JOINT] INDEPENDENT AND DEPENDENT CLAIMS

Claims can be stated in two different ways in a patent. The first way a patent claim can be stated is in the form of an "independent" claim. An "independent" claim sets forth all of the requirements that must be met in order for an accused product or method to be covered by that claim, and thus infringe that claim. An independent claim is read alone to determine its scope.

In this case, claim 1 of the '400 Patent; claim 1 of the '323 Patent; claim 1 of the '056 Patent; and claim 1 of the '929 Patent are each independent claims.

The second way a claim can be stated is in the form of a "dependent" claim. A dependent claim does not itself recite all of the requirements of the claim but instead incorporates the requirements of another claim or claims and adds its own additional requirements. In this way, the claim "depends" on another claim or claims. To determine what a dependent claim covers, it is necessary to look at both the dependent claim and any other claims from which it depends. For example, claim 2 of the '400 Patent is a dependent claim of claim 1 and, as a result, claim 2 includes all the requirements of claim 1 and all the additional requirements of claim 2.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 14, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 14, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

Defendant's Authority: *Sonos, Inc. v. D&M Holdings Inc.*, Civ. A. No. 14-1330-WCB (D. Del. Dec. 15, 2017), ECF No. 524 (modified to address the facts and issues in this case).

4.3. [JOINT] CONSTRUCTION OF CLAIMS

The law says that it is the Court's duty to define the terms of patent claims. I have already defined the meaning of some of the words of the patent claims that you are considering in this case. These definitions have been provided to you, and they are attached to these jury instructions.

You must accept my definition of these words in the patent claims as correct. You must use the definitions I give you for each claim to make your decisions as to whether the claim is infringed or invalid. You must ignore any different definitions used by the witnesses or the attorneys. You should not take my definition of the language of the patent claims as an indication that I have a view regarding how you should decide the infringement or invalidity issues that you are being asked to decide. These issues are yours to decide.

When I have not defined a term, you should give it its ordinary meaning.

Authority:

Plaintiff's Authority: Final Jury Instructions at 15, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323.

4.4. [JOINT] OPEN ENDED OR "COMPRISING" CLAIMS

Some of the asserted claims use the word "comprising."

"Comprising" is interpreted the same way as "including" or "containing." In patent claims, "comprising" means that the claims are open-ended. As such, the accused methods must contain or use everything that is in the claim, but may additionally contain or use other things. Based on this explanation, if you find that Oxford's methods include all of the requirements in a claim, the fact that Oxford's methods may also include an additional step or component does not mean that the methods do not infringe the claim.

Authority:

Plaintiff's Authority: Final Jury Instructions at 16, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 3233 (modified to address the facts and issues in this case).

5. INFRINGEMENT

5.1. [JOINT] INFRINGEMENT GENERALLY

Any person or business entity that performs the patented method in the United States during the term of the patent without the patent owner's permission, infringes the patent.

I will now instruct you how to decide whether Oxford has infringed and/or infringes any of the asserted claims in PacBio's patents. Infringement is assessed on a claim-by-claim basis. Therefore, there may be infringement as to one claim but no infringement as to another.

In this case, PacBio asserts that Oxford infringes the asserted claims of the '400, '323, '056, or '929 Patents through its and its customers' use in the United Sates of the MinION (including the MinION and MinION Mk1C), the PromethION (including the PromethION beta version and the PromethION P24/P48), the GridION X5, and the Flongle sequencing systems.

PacBio asserts that the use of Oxford's sequencing systems with two types of software – the "RNN Software" and the "Flip-Flop Software" – infringe the asserted claims of the '400 and '323 Patents.

PacBio also asserts that the use of Oxford's sequencing systems with sequencing kits infringe the asserted claims of the '056 and '929 Patents. PacBio asserts that the use of Oxford's sequencing systems with 2D sequencing kits and $1D^2$ sequencing kits infringe the asserted claims of the '929 Patent. PacBio asserts that the use of Oxford's sequencing systems with RNA sequencing kits and DNA sequencing kits infringe the asserted claims of the '056 Patent.

In order to prove infringement, PacBio must prove that the requirements of infringement are met by a preponderance of the evidence.

Authority:

Plaintiff's Authority: Final Jury Instructions at 17, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case).

Defendant's Authority: *Helios Software, LLC v. SpectorSoft Corp.*, Civ. A. No. 12-081-LPS (D. Del. June 19, 2015), ECF No. 608 (modified to address the facts and issues in this case); *Commil USA, LLC v. Cisco Systems, Inc.*, 720 F.3d 1361 (Fed. Cir. 2013).

5.2. [CONTESTED] DIRECT INFRINGEMENT

To prove direct infringement of a patent claim by a party, PacBio must prove by a preponderance of the evidence, that it is more likely than not that Oxford's products meet all of the requirements of the patent claim when used by that party in the United States.

To determine direct infringement, you must compare the methods of using the accused Oxford products with each claim that PacBio asserts is infringed, using my instructions as to the meaning of the patent claims, to determine whether each one of the steps of the method of that claim are satisfied.

A patent claim is infringed only if Oxford's MinION, PromethION, GridION X5, and/or Flongle System sequencing systems perform each method step in that patent claim within the United States when a party uses that product. If Oxford's products do not perform one or more of the method steps recited in a claim in the United States when a party uses that product, the party using that product does not directly infringe that claim.

Remember the question is whether the Oxford's products infringe any of the asserted claims, and not whether Oxford's products are similar or even identical to any product made by PacBio. Accordingly, you must be certain to compare Oxford's products only with the claims they are alleged to infringe and not with any product of PacBio.

Oxford's knowledge of PacBio's patents and Oxford's intent are irrelevant to your determination of direct infringement.

Authority:

Plaintiff's Authority: Final Jury Instructions at 18, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in

this case); Final Jury Instructions at 23, *Vehicle IP, LLC v. Werner Enterprises, Inc.*, 10-cv-503-SLR (D. Del. Oct. 1, 2013), ECF No. 215 (modified to address the facts and issues in this case). Defendant's Authority: *Sonos, Inc. v. D&M Holdings Inc.*, Civ. A. No. 14-1330-WCB (D. Del. Dec. 15, 2017), ECF No. 524 (modified to address the facts and issues in this case).

5.3. [JOINT] CONTRIBUTORY INFRINGEMENT

PacBio also argues that Oxford has contributed to infringement by another. Contributory infringement may arise when someone supplies something that is used to infringe one or more of the patent claims. As with direct infringement, you must determine contributory infringement on a claim-by-claim basis.

Proof of contributory infringement requires a showing by a preponderance of the evidence that the accused infringer contributed to the direct infringement of an issued patent by a third party. In order for there to contributory infringement by Oxford, someone other than Oxford must directly infringe an asserted claim of the '400, '323, '056, or '929 Patents; if there is no direct infringement by anyone, there can be no contributory infringement.

If you find someone has directly infringed an asserted claim of the '400, '323, '056, or '929 Patents, then contributory infringement exists if PacBio proves that:

1. Oxford supplied a component of the infringing part of the method;
2. The component constitutes a material part of the invention;
3. The component has no substantial non-infringing use; and
4. Oxford was aware of the respective patent and knew that the product was especially made or adapted for use in an infringing manner.

Authority:

Plaintiff's Authority: N.D. Cal. Model Patent Jury Instructions No. 3.6 (Contributory Infringement) (rev. Aug. 2017, updated Oct. 2019); *see also* 2018 AIPLA Model Patent Jury Instructions No. 3.10.

Defendant's Authority: *Sonos, Inc. v. D&M Holdings Inc.*, Civ. A. No. 14-1330-WCB (D. Del. Dec. 15, 2017), ECF No. 524, p. 10 (modified to address the facts and issues in this case).

5.4. [CONTESTED] INDUCING PATENT INFRINGEMENT

PacBio alleges that Oxford has actively induced another to infringe the asserted claims of the '400, '323, '056, or '929 Patents. In order for Oxford to have induced infringement, Oxford must have induced another to directly infringe an asserted claim of the '400, '323, '056, or '929 Patents; if there is no direct infringement by anyone, there can be no induced infringement. As with direct infringement, you must determine induced infringement on a claim-by-claim basis.

[In order to be liable for inducing infringement, ONT must have:] [Proof of induced infringement requires a showing by a preponderance of the evidence that the accused infringer intentionally induced a third party to directly infringe an issued patent, knowing that the third party's induced actions would, in fact, directly infringe that patent. In order to be liable for inducing infringement, PacBio must prove that Oxford]:

1. intentionally took action that encouraged acts by another;

2. was aware of the '400, '323, '056, or '929 Patents; and

3. [known/knew] that the acts it was causing would infringe the patents.

[ONT may be considered to have known that the acts it was causing would infringe the '400, '323, '056, or '929 Patents if it subjectively believed there was a high probability that the direct infringer's product or method was patented and nevertheless deliberately took steps to avoid learning that fact, in other words, willfully blinded itself to the infringing nature of the direct infringer's acts.]

[In order to establish active inducement of infringement, it is not sufficient that others directly infringe the claim. Nor is it sufficient that Oxford was aware of the acts by others that directly infringe. Rather, in order to find inducement, you must find that, at the time of the direct infringement, Oxford specifically intended others to use its products in at least some ways that

would infringe the asserted claims of an issued patent, or that Oxford believed there was a high probability that an issued patent exists and that the direct infringer's acts infringe that patent but deliberately took steps to avoid learning that fact. The mere fact, if true, that Oxford knew or should have known that there was a substantial risk that the acts of one or more of its customers would infringe the patents-in-suit would not be sufficient for active inducement of infringement.

An accused infringer's good faith belief of noninfringement can defeat the requisite intent for purposes of inducement.]

Authority:

Plaintiff's Authority: N.D. Cal. Model Patent Jury Instructions No. 3.7 (Inducing Patent Infringement) (rev. Aug. 2017, updated Oct. 2019); *see also* 2018 AIPLA Model Patent Jury Instructions No. 3.8; ABA Draft Model Patent Jury Instructions No. 8.3.1 (https://www.ded.uscourts.gov/sites/ded/files/chambers/ABAModelPatentJuryInstructions.pdf).

Defendant's Authority: *Fairchild Semiconductor Corp. v. Power Integrations, Inc.*, Civ. A. No. 12-540-LPS (D. Del. June 4, 2015), ECF No. 400, p. 29-30 (modified to address the facts and issues in this case); *Siemens Mobility, Inc. v. Westinghouse Air Brake Techs. Corp.*, Civ. A. No. 16-284-LPS (D. Del. Jan. 23, 2019), ECF No. 442, p. 28-29 (modified to address the facts and issues in this case).

5.5. [JOINT] INFRINGEMENT UNDER THE DOCTRINE OF EQUIVALENTS

If you decide that the method of using the accused products does not literally infringe an asserted patent claim, you must then decide whether that method infringes the asserted claim under what is called the "doctrine of equivalents."

Under the doctrine of equivalents, an accused product can infringe an asserted patent claim if its use results in the performance of steps that are identical or equivalent to those steps of the claim that are not literally performed through use of the accused product. Thus, in making your decision under the doctrine of equivalents, you must look at each individual claim requirement and decide whether the accused product's use results in the performance of an equivalent step to the individual method claim step that is not literally performed by use of the accused product.

A step performed by an accused product is equivalent to a claim requirement if a person of ordinary skill in the art would think that the differences between the step and the claim requirement were not substantial as of the time of the alleged infringement.

Changes in technique or improvements made possible by technology developed after the patent application is filed may still be equivalent for the purposed of the doctrine of equivalents if it still meets the other requirements of the doctrine of equivalents set forth in this instruction.

Authority:

Plaintiff's Authority: N.D. Cal. Model Patent Jury Instructions No. 3.4 (Infringement Under the Doctrine of Equivalents) (rev. Aug. 2017, updated Oct. 2019); *see also* 2018 AIPLA Model Patent Jury Instructions No. 3.7; The Federal Circuit Bar Association Model Patent Jury Instructions No. 3.1c (Last Edited: July 2016); ABA Draft Model Patent Jury Instructions No. 8.5 (https://www.ded.uscourts.gov/sites/ded/files/chambers/ABAModelPatentJuryInstructions.pdf).

Defendant's Authority: *Mylan Institutional LLC v. Aurobindo Pharma Ltd.*, 857 F.3d 858, 867, 869 (Fed. Cir. 2017).

6. [JOINT] INVALIDITY

In this case, Oxford contends that all of the asserted claims are invalid. Oxford contends that all of the asserted claims of the '056 Patent are anticipated. Oxford also contends that all of the asserted claims of the '056 and '929 Patents are obvious in view of the prior art. Oxford contends that all of the asserted claims of the '400, '323, '056, and '929 Patents lack written description and are not enabled. Oxford contends that all of the asserted claims of the '056 Patent are indefinite, and all of the asserted claims of the '929 Patent lack patent eligible subject matter. I will explain each of these legal concepts of invalidity in a moment.

In making your determination, you must consider each of these patent claims separately and individually.

Authority:

Final Jury Instructions at 20, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case).

6.1. [JOINT] PERSON OF ORDINARY SKILL IN THE ART

The question of invalidity of a patent claim is determined from the perspective of a person of ordinary skill in the art in the field of the invention at the time of the named inventors' invention date.

You must determine the level of ordinary skill in the field of the invention. In deciding what the level of ordinary skill is, you should consider all the evidence introduced at trial, including but not limited to: (1) the levels of education and experience of the inventor and other persons actively working in the field; (2) the types of problems encountered in the field; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; and (5) the sophistication of the technology.

Authority:

Plaintiff's Authority: Final Jury Instructions at 21, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case).

6.2. [CONTESTED] PRIOR ART

Under the patent laws, a person is granted a patent only if the invention claimed in the patent is new and not obvious in light of what came before. That which came before is referred to as the "prior art." Prior art is the legal term used to describe what others had done in the field before the invention was made. Prior art is the general body of knowledge in the public domain, such as articles, products, or other patents, before the invention was made. It is not necessary that the prior art has been available to every member of the public, but it must have been available, without restriction, to that segment of the public most likely to avail itself of the prior art's contents.

Prior art includes any of the following items received into evidence during trial:

1. Any product or method that was publicly known or used by others in the United States before a patented invention was made;
2. Patents that issued more than one year before the filing date of the patent, or before the invention was made;
3. Publications having a date more than one year before the filing date of the patent, or publicly accessible in the United States before the invention was made;
4. Any product or method that was in public use or on sale in the United States more than one year before the patent was filed; or
5. Any product or method described in an issued United States patent filed by another person before the invention date of the patent.

A printed publication must have been maintained in some tangible form, such as printed pages, and must have been sufficiently accessible to persons interested in the subject matter of its contents. Information is publicly accessible if it was distributed or otherwise made available to the

extent that persons interested and ordinarily skilled in the subject matter, exercising reasonable diligence, can locate it.

The burden of proof is on ONT to prove that the prior art renders a claim invalid, and it never changes regardless of whether the Examiner in the Patent Office considered the prior art reference during the prosecution of the application which matured into a patent. However, if the Patent Office considered a reference, it may be more difficult for ONT to meet its burden of proof to prove invalidity based on that reference.

Authority:

Plaintiff's Authority: Final Jury Instructions at 22, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); *Carrier Corp. v. Goodman Global, Inc.*, 162 F.Supp.3d 345, (D.Del. 2016).

Defendant's Authority: *Helios Software, LLC v. SpectorSoft Corp.*, Civ. A. No. 12-081-LPS (D. Del. June 16, 2015), ECF No. 608, p. 37 (modified to address the facts and issues in this case); *Novartis AG v. Torrent Pharms. Ltd.*, 853 F.3d 1316, 1322, 1326 (Fed. Cir. 2017); *Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1260 (Fed. Cir. 2012); *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359 (Fed. Cir. 1984).

6.3. [JOINT] OBVIOUSNESS

As I explained previously, under the patent laws a person is granted a patent only if the invention claimed in the patent is both new and not obvious in light of what came before. Even though an invention has not been identically disclosed or described before it was made by an inventor, in order to be patentable, the invention must also not have been obvious to a person of ordinary skill in the art at the time the invention was made. Obviousness may be proven by considering more than one item of prior art. In this case, Oxford contends that all of the asserted claims of the '056 and '929 Patents are obvious over specific combinations of the prior art and the knowledge of a person of skill in the art.

Oxford must prove by clear and convincing evidence that the asserted claims of the '056 and '929 Patents would have been obvious to a person of ordinary skill in the art at the time the invention was made. The issue is not whether the asserted claims would have been obvious to you as a layperson, to me as the judge, or to a genius in the field of DNA sequencing, but whether it would have been obvious to one of ordinary skill in the art at the time the invention was made.

In determining whether an asserted claim would have been obvious, you must avoid using hindsight; that is, you should not consider what is known today or what was learned from the teachings of the asserted patents. You should not use the patent as a road map for selecting and combining items of prior art. You must put yourself in the place of a person of ordinary skill in the art at the time the invention was made.

In determining whether an asserted claim would have been obvious, you must consider (1) the scope and content of the prior art, (2) the level of ordinary skill in the pertinent art; and (3) the differences between the claimed invention and the prior art.

To determine the scope and content of the prior art, you must determine what prior art is reasonably pertinent to the particular problems the inventors faced. The person of ordinary skill in the art is presumed to be aware of all of the pertinent prior art.

I have already instructed you on how you are to determine the level of ordinary skill in the art. Once you have made that determination, you are to apply it in your determination of whether the asserted claims would have been obvious.

The next factor that you must consider is the differences between the prior art and the asserted claims. Importantly, a claim is not proved obvious merely by demonstrating that each of the claim requirements was independently known in the prior art. Most, if not all, inventions rely on building blocks of prior art, and claimed discoveries almost of necessity will likely be combinations of what is already known. Therefore, you should consider whether a reason existed at the time of the invention that would have prompted a person of ordinary skill in the art to combine the known elements in the way the asserted claim does. The motivation to modify the prior art to arrive at the asserted claim need not be the same motivation that the inventor had. Additionally, a person of ordinary skill in the art must have had a reasonable expectation of success in combining the known elements in the way the asserted claim does.

In arriving at your decision on the issue of whether the asserted claims would have been obvious to a person of ordinary skill in the art, you may take into account such factors as: (1) whether the asserted claims were merely the predictable result of using prior art elements according to their known functions; (2) whether the asserted claims provide an obvious solution to a known problem in the relevant field; (3) whether the prior art teaches or suggests the desirability of combining elements in the asserted claims; (4) whether the prior art teaches away from combining elements in the asserted claims; and (5) whether it would have been obvious to try the combinations

of elements, such as when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions.

In arriving at your decision on the issue of whether the asserted claims would have been obvious to a person of ordinary skill in the art, you should take into account any "objective indicia of nonobviousness," that may have existed at the time of the invention and afterwards that suggest that the asserted claims were not obvious. Such objective indicia may include the presence of a long-felt but unresolved need in the industry, a failure to address a known problem, teaching away from the invention by others, the commercial success of the claimed invention, and copying by others.

These factors should be considered along with all the other evidence in the case in determining whether the asserted claims would have been obvious. In considering this kind of evidence, you should consider whether the secondary consideration was attributable to the features of the asserted claims as opposed to features already found in the prior art.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 25-26, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 21-22, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

Defendant's Authority: *Sonos, Inc. v. D&M Holdings Inc.*, Civ. A. No. 14-1330-WCB (D. Del. Dec. 15, 2017), ECF No. 524 (modified to address the facts and issues in this case).

6.4. [JOINT] WRITTEN DESCRIPTION

The patent law contains certain requirements for the part of the patent called the specification. Oxford contends that the asserted claims are invalid because the specifications of the patents do not contain an adequate written description of the invention. A patent must contain a written description of the claimed invention. The written description requirement helps to ensure that the patent applicant actually invented the claimed subject matter. To satisfy the written description requirement, the patent specification must describe every limitation of a patent claim, in sufficient detail, although the exact words found in the claim need not be used. When determining whether the specification discloses the invention, the claim must be viewed as a whole.

The written description requirement is satisfied if a person having ordinary skill in the art, reading the original patent application, would have recognized that the specification describes the scope of the claimed invention as it is finally claimed in the issued patent and that the inventor actually possessed the full scope of the invention on or before the priority date. That a person having ordinary skill in the art could have envisioned the claimed invention does not satisfy the written description requirement. United States patents or patent application publications properly disclosed in the specification as being incorporated by reference may be considered in evaluating whether the specification has provided adequate written description, but the written description requirement cannot be satisfied by any non-patent publications, such as journal articles, that are disclosed in the specification as being incorporated by reference.

It is unnecessary to spell out every detail of the invention in the specification, and specific examples are not required; only enough must be included in the specification to convince persons of ordinary skill in the art that the inventor possessed the full scope of the invention. Where the

full scope of the invention is a broad class, or genus, an adequate written description requires the disclosure of either a representative number of members of the class falling within the scope of the genus or structural features common to the members of the genus so that one of skill in the art can "visualize or recognize" the members of the genus.

In evaluating whether the specification has provided an adequate written description, you may take into account such factors as:

1. the nature and scope of the patent claims;

2. the complexity, predictability, and maturity of the technology at issue;

3. the existing knowledge in the relevant field; and

4. the scope and content of the prior art.

The issue of written description is decided on a claim-by-claim basis, not as to the entire patent or groups of claims.

Authority:

Plaintiff's Authority: N.D. Cal. Model Patent Jury Instructions No. 4.2a (Written Description Requirement) (rev. Aug. 2017, updated Oct. 2019); *see also* The Federal Circuit Bar Association Model Patent Jury Instructions No. 4.2a (Last Edited: July 2016).

Defendant's Authority: *Goeddel v. Sugano*, 617 F.3d 1350, 1356 (Fed. Cir. 2010); *Integra Lifesciences Corp. v. Hyperbranch Med. Tech., Inc.*, Civ. A. No. 15-819-LPS-CJB (D. Del. June 7, 2018), ECF No. 746, p. 54-55 (modified to address the facts and issues in this case); Droplets, Inc. v. E*Trade Bank, 887 F.3d 1309, 1318-19 (Fed. Cir. 2018); 37 C.F.R. § 1.57(c).

6.5. [CONTESTED] ENABLEMENT

Oxford contends that the asserted claims of the patents are invalid because the patents do not disclose sufficient information to enable one skilled in the art, at the time of the invention, to make and use the full scope of the claimed invention. This requirement is known as the enablement requirement. If the full scope of a patent claim is not enabled, it is invalid. Each claim must be analyzed separately for compliance with the enablement requirement. Oxford must prove by clear and convincing evidence that the claim was not enabled.

In considering whether a patent claim satisfies the enablement requirement, you must keep in mind that patents are written for persons of skill in the art. Thus, a patent need not expressly state information that skilled persons would be likely to know or could obtain at the time of the claimed invention. Oxford bears the burden of establishing lack of enablement by showing by clear and convincing evidence that a person skilled in the art, upon reading the patent document, would not be able to make the full scope of the asserted claim without undue experimentation. The fact that some experimentation may be required for a skilled person to make or use the claimed invention does not mean that a patent's specification fails to provide sufficient teaching to meet the enablement requirement. Factors you may consider in determining whether making the invention would require undue experimentation include:

1. the quantity of experimentation necessary;
2. the amount of direction or guidance disclosed in the patent;
3. the presence or absence of working examples in the patent;
4. the nature of the invention;
5. the state of the prior art;
6. the relative skill of those in the art;

7. the predictability of the nanopore DNA sequencing; and

8. the breadth of the claims.

United States patents or patent application publications properly disclosed in the specification as being incorporated by reference may be considered in evaluating whether a patent claim satisfies the enablement requirement, but the enablement requirement cannot be satisfied by any non-patent publications, such as journal articles, that are disclosed in the specification as being incorporated by reference.

If you find that one or more of these claims did not comply with the enablement requirement, you must find that claim invalid.

Authority:

Plaintiff's Authority: Patent Jury Instruction Handbook § 3:3; *Droplets, Inc. v. E*TRADE Bank*, 887 F.3d 1309, 1318-20 (Fed. Cir. 2018).

Defendant's Authority: Droplets, Inc. v. E*Trade Bank, 887 F.3d 1309, 1318-19 (Fed. Cir. 2018); 37 C.F.R. § 1.57(c).

6.6. [JOINT] INDEFINITENESS[1][2]

Oxford contends that the asserted claims of the '056 Patent are invalid because the language of the claims is indefinite. The patent laws have requirements for the way in which patent claims are written. Patent claims must be sufficiently clear that a person of ordinary skill in the art reading them is able to determine what the claims cover and what they do not cover. If a patent claim does not meet this requirement, then the claim is said to be indefinite, and the claim is invalid.

The amount of detail required for a claim to be definite depends on the particular invention, the prior art, and the description of the invention contained in the patent. A patent claim, when read along with the rest of the patent, must reasonably inform those skilled in the art what the patent claims cover. Simply because claim language may not be precise does not automatically mean that the claim is indefinite. The claim language need only be as precise as the subject matter permits.

If you find that a person of ordinary skill in the art would not understand with reasonable certainty what is, and what is not, covered by the asserted claims of the '056 Patent, you must find those claims invalid.

Authority:

[1] By inclusion of a jury instruction on indefiniteness, Oxford does not concede that this issue presents any factual disputes that should be properly resolved by the jury. Oxford hereby preserves its objection to the presentation of this issue to the jury because there are no disputed issues of material fact that preclude resolution as a matter of law.

[2] As the Court reasoned in its denial of ONT's motion for summary judgment of indefiniteness (D.I. 444 at 3-4) and again during the pretrial conference (Tr. at 46:17-23), this issue presents triable issues of fact that are appropriate for the jury.

Defendant's Authority: ABA Draft Model Patent Jury Instructions § 10.5 (modified to address the facts and issues in this case); *Bio-Rad Labs., Inc. v. 10X Genomics, Inc.*, Civ. A. No. 15-cv-152-RGA (D. Del. Nov. 13, 2018), ECF No. 470 (modified to address the facts and issues in this case).

7. [CONTESTED] WILLFUL INFRINGEMENT

To prove willful infringement, PacBio must persuade you by a preponderance of the evidence that Oxford infringed a valid claim of PacBio's patent. The requirements for proving such infringement were discussed earlier in my instructions.

[In addition, to prove willful infringement of a claim, PacBio must persuade you that it is more likely true than not true that ONT intentionally ignored or recklessly disregarded that claims.] [If you find that Oxford is liable for infringement of one or more valid claims of PacBio's patents, you must next decide whether Oxford's infringement was willful. To prove willful infringement of a claim, PacBio must persuade you by a preponderance of the evidence that Oxford acted despite a risk of infringement that was known or was so obvious that it should have been known, and that in so doing Oxford's behavior was malicious, wanton, deliberate, consciously wrongful, in bad faith, or as it may be described – "characteristic of a pirate."] You must base your decision on Oxford's knowledge and actions at the time of infringement. Evidence that Oxford had knowledge of the patent at the time of infringement by itself is not sufficient to show willfulness. [Rather, to show willfulness, you must find that ONT engaged in additional conduct evidencing deliberate or reckless disregard of PacBio's patent rights.]

In making that determination, you [should consider all of the facts surrounding the infringement, including:/ may consider factors such as whether Oxford acted inconsistently with the standards of behavior for its industry;] whether Oxford actually copied or attempted to copy the inventions covered by PacBio's patents; whether ONT knew, or should have known, that its conduct involved an unreasonable risk of infringement; and whether ONT had a reasonable belief that at the time of infringement that tis products did not infringe the asserted patent. whether Oxford failed to make a good-faith effort to avoid infringing PacBio's patents.

Authorities:

Plaintiff's Authority: N.D. Cal. Model Patent Jury Instructions No. 3.8 (Willful Infringement); *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1932 (2016); Preliminary Jury Instructions, *Greatbatch Ltd. v. AVX Corp.*, Case No. 13-cv-723 (D. Del. Aug. 10, 2017), ECF No. 1032; Official Transcript of Jury Trial at 1053:13-25, *Greatbatch Ltd. v. AVX Corp.*, Case No. 13-cv-723 (D. Del. Sep. 19, 2017), ECF No. 1064; *Eko Brands, LLC v. Adrian Rivera Maynez Enterprises, Inc.*, 946 F.3d 1367, 1379 (Fed. Cir. 2020).

Defendant's Authority: *Sonos, Inc. v. D&M Holdings Inc.*, Civ. A. No. 14-1330-WCB (D. Del. Dec. 15, 2017), ECF No. 524, p. 10-11 (modified to address the facts and issues in this case); *Roche Diagnostics Corp. v. Meso Scale Diagnostics, LLC*, Civ. A. No. 17-189 (LPS) (CJB) (D. Del. Nov. 25, 2019), ECF No. 274, p. 49.

8. DAMAGES

8.1. [CONTESTED] DAMAGES—GENERALLY

If you find that Oxford infringed any valid claim of PacBio's patents, you must decide the amount of money to award to PacBio to compensate it for its injuries. I will now instruct you about the measure of damages. By instructing you on damages, I am not suggesting which party should win this case on any issue.

The damages you award must be adequate to compensate PacBio for any infringement you determine to have occurred. Damages are not meant to punish an infringer. Your damages award, if you reach this issue, should put PacBio in approximately the same financial position that it would have been in if the parties had reached agreement for Oxford to license the patents before the infringement began.

PacBio has the burden to prove the amount of its damages by a preponderance of the evidence. While PacBio is not required to prove the amount of its damages with mathematical precision, it must prove them with reasonable certainty. PacBio is not entitled to damages that are remote or speculative or based on guesswork.

The amount of any damages is to be calculated for a range of dates that is different for each of the patents. The date range for damages for each patent is beginning on January 17, 2017 for the '400 Patent; on June 13, 2017 for the '056 Patent; on August 22, 2017 for the '929 Patent; and on September 26, 2017 for the '323 Patent.

PacBio seeks damages from Oxford under multiple legal theories, each of which I will explain shortly. Damages awarded under more than one of these legal theories may only be counted once in coming up with a total damages amount.

Authorities:

Plaintiff's Authority: N.D. Cal. Model Patent Jury Instructions No. 5.1 (Damages – Burden Of Proof) (rev. Aug. 2017, updated Oct. 2019); 2018 AIPLA Model Patent Jury Instructions No. 10.2.1.7; Final Jury Instructions at 28, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 24, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623, p. 54-55 (modified to address the facts and issues in this case).

8.2. [JOINT] TYPES OF DAMAGES THAT MAY BE RECOVERED

There are different types of damages that are available for patent infringement.

One type of patent damages is lost profits. Lost profits are the additional profits that the patent owner would have made if the defendant had not infringed. In connection with lost profits, you may hear references to the "but for" test, which asks "what profits would the patent owner have made 'but for' the alleged infringement?"

A second type of patent damages is a reasonable royalty. A reasonably royalty is the reasonable amount that someone wanting to use the patented invention would have agreed to pay to the patent owner and the patent owner would have accepted. A patent owner that is not able to satisfy the "but for" test for lost profits is able to recover reasonable royalty damages. A reasonable royalty is the minimum amount of damages that a patent owner can receive for an infringement.

In this case, PacBio seeks damages for lost profits for sales of the accused products made by Oxford. PacBio also seeks a reasonable royalty for those sales.

I will give you further instructions on each type of damages.

Authorities:

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623.

8.3. [JOINT] APPORTIONMENT

A damages award must reflect the portion of the profits or royalty attributable to the patented methods in the asserted claims. In other words, your damages award must reflect the value you find attributable to the asserted claims.

PacBio must give evidence tending to separate or apportion Oxford's profits and PacBio's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative. You may award damages based only on profits or royalty that are directly attributable to the value of the patented technology. You may not award damages based on profits or royalty attributable to the unpatented features of the accused products. PacBio bears the burden to establish the amounts directly attributable to the patented features.

Authorities:

Plaintiff's Authority: *Helios Software, LLC v. SpectorSoft Corp.*, Civ. A. No. 12-081-LPS (D. Del. June 19, 2015), ECF No. 608 (modified to address the facts and issues in this case); *Mentor Graphics Corp. v. EVE-USA*, Inc., 851 F.3d 1275, 1290 (Fed. Cir. 2017)

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623, p. 58 (modified to address the facts and issues in this case).

8.4. [JOINT] LOST PROFITS—"BUT FOR" TEST

In this case, PacBio seeks to recover lost profits for the lost sales of its consumable goods as a result of some of Oxford's sales of its MinION (including the MinION and MinION Mk1C), PromethION (including the PromethION beta version and the PromethION P24/P48), GridION X5, and Flongle sequencing systems and their associated consumable goods.

To prove lost profits, PacBio must show that, but for Oxford's infringement, PacBio would have made additional profits through the sale of PacBio's consumable products in place of all or a portion of the sales of the accused products made by Oxford. PacBio must prove this by a preponderance of the evidence. Part of your job is to determine what the customer who purchased the accused products from Oxford would have done if the alleged infringement had not occurred. It is important to remember that the profits I have been referring to are the profits allegedly lost by PacBio, not the profits, if any, made by Oxford on the allegedly infringing sales.

Authorities:

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623 (modified to address the facts and issues in this case).

8.5. [JOINT] LOST PROFITS—LOST PROFITS FROM LOST SALES (THE PANDUIT FACTORS)

PacBio seeks to recover lost profits from lost sales. In order to recover this form of damages, you must find that PacBio has shown each of the following four (4) *Panduit* factors by a preponderance of the evidence:

(1) There was a demand for the patented products;

(2) There were no available and acceptable non-infringing alternatives to the patented invention;

(3) That PacBio had the manufacturing and marketing capacity to make any infringing sales actually made by Oxford; and

(4) The amount of profit that PacBio would have made if Oxford had not infringed.

I will now explain each of these factors.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 31, *E.I. Du Pont De Nemours & Co. v. Unifrax I LLC*, Civ. A. No. 14-cv-01250-RGA (D. Del. May 15, 2017), ECF No. 325 (modified to address the facts and issues in this case).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623 (modified to address the facts and issues in this case).

8.6. [CONTESTED] LOST PROFITS—DEMAND

The first factor asks whether there was a demand for the patented product in the relevant market. PacBio can prove demand for the patented product by showing significant sales of [3] [4]Oxford's products that are covered by the asserted claims or significant sales of a PacBio product that directly competes with an Oxford product that is covered by the asserted claims. To use sales of Oxford's products as proof of this demand, however, PacBio's and Oxford's products must be sufficiently similar to compete against each other in the same market or market segment. You should not consider sales of products mainly due to advertising and marketing as evidence of demand for the patented product. This factor does not require any allocation of consumer demand among the various limitations recited in a patent claim.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 31-32, *E.I. Du Pont De Nemours & Co. v. Unifrax I LLC*, Civ. A. No. 14-cv-01250-RGA (D. Del. May 15, 2017), ECF No. 325 (modified to address the facts and issues in this case); *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l Inc.*, 246 F.3d 1336, 1343-44, 1356 (Fed. Cir. 2001).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623, p. 61 (modified to address the facts and issues in this case).

---

[3] Defendants reserve for appeal their challenge to lost profits being awarded for non-practicing products, but recognize the Court's previous ruling.

[4] Plaintiff identifies *Rite-Hite Corp. v. Kelley Co.* as supporting recovery of lost profits, regardless of whether the patentee sells its patented invention. 56 F.3d 1538, 1548 (Fed. Cir. 1995) ("We see no basis for [the] conclusion that the lost sales must be of products covered by the infringed patent.").

8.7. [JOINT] LOST PROFITS—NON- INFRINGING SUBSTITUTES

The second factor asks whether there were non-infringing, acceptable substitutes for the patented products in the marketplace. If the realities of the marketplace are that competitors other than PacBio would likely have captured some or all of the sales made by Oxford, even despite a difference in the products, then PacBio is not entitled to lost profits on those sales.

To be an acceptable substitute, the products must have had one or more of the advantages of the patented invention that were important to the purchaser of the infringing products, not necessarily to the public in general. The acceptable substitutes must also not infringe the patent. The acceptable substitutes, in addition, must have been available during the damages period. An acceptable non-infringing substitute is available if, during the damages period, a competitor or Oxford had all the necessary equipment, materials, knowledge, and experience to design and manufacture the substitute and sell such substitute at the time the sales for the infringing products were made. The substitute need not have actually been sold at that time. If you determine that some of the purchasers of Oxford's accused products would just as likely have purchased a non-infringing acceptable product, then PacBio has not shown it lost those sales but for Oxford's sales.

Even if you find that PacBio's and Oxford's products were the only ones with the advantages of the patented invention, PacBio is nonetheless required to prove to you that it, in fact, would have made Oxford's infringing sales.

Authority:

Plaintiff's Authority: Final Jury Instructions at 33, *E.I. Du Pont De Nemours & Co. v. Unifrax I LLC*, Civ. A. No. 14-cv-01250-RGA (D. Del. May 15, 2017), ECF No. 325 (modified to address the facts and issues in this case); *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1286 (Fed. Cir 2017).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623 (modified to address the facts and issues in this case).

8.8. [JOINT] LOST PROFITS—CAPACITY

The third factor asks whether PacBio had the manufacturing and marketing ability to actually make the sales it allegedly lost due to Oxford's infringement. PacBio must prove by a preponderance of the evidence that it could have supplied the additional products needed to make the sales PacBio said it lost, or that someone working with PacBio could have supplied the additional products. PacBio also must prove by a preponderance of the evidence that it had the ability to market and sell these additional products.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 33, 35, *E.I. Du Pont De Nemours & Co. v. Unifrax I LLC*, Civ. A. No. 14-cv-01250-RGA (D. Del. May 15, 2017), ECF No. 325 (modified to address the facts and issues in this case).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623 (modified to address the facts and issues in this case).

8.9. [CONTESTED] LOST PROFITS—AMOUNT OF PROFIT

The fourth factor asks the amount of profit that PacBio would have made if Oxford had not infringed. PacBio may calculate the amount of its lost profits by calculating its lost sales of products that directly compete with an Oxford product that is covered by the asserted claims [5] [6]and subtracting from that amount any additional costs or expenses that PacBio would have incurred in making those lost sales, such as cost of goods, sales costs, packaging costs, and shipping costs. Certain fixed costs that do not vary with increases in production or scale, such as taxes, insurance, rent, and administrative overhead, should not be subtracted from the lost revenue. The amount of lost profits cannot be speculative, but need not be proved with unerring certainty.

Authorities:

Plaintiff's Authority: 2018 AIPLA Model Patent Jury Instructions No. 10.2.1.7; *see also* The Federal Circuit Bar Association Model Patent Jury Instructions No. 6.2 (Last Edited: July 2016); Final Jury Instructions at 33, 35, *E.I. Du Pont De Nemours & Co. v. Unifrax I LLC*, Civ. A. No. 14-cv-01250-RGA (D. Del. May 15, 2017), ECF No. 325 (modified to address the facts and issues in this case).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623 (modified to address the facts and issues in this case).

[5] Defendants reserve for appeal their challenge to lost profits being awarded for non-practicing products, but recognize the Court's previous ruling.

[6] Plaintiff identifies *Rite-Hite Corp. v. Kelley Co.* as supporting recovery of lost profits, regardless of whether the patentee sells its patented invention. 56 F.3d 1538, 1548 (Fed. Cir. 1995) ("We see no basis for [the] conclusion that the lost sales must be of products covered by the infringed patent.").

8.10. [JOINT] REASONABLE ROYALTY AS A MEASURE OF DAMAGES

If you find infringement of a valid claim, and if you find that PacBio has not proven its claim for lost profits, or if you find that PacBio has proven its claim for lost profits for only a portion of the infringing sales, then you must consider the issue of a reasonable royalty. You should also consider reasonable royalties for sales that infringed a valid patent for which PacBio has only claimed reasonable royalties.

A reasonable royalty is an alternative to lost profits for calculating damages. A royalty is a payment made to the owner of a patent by another in exchange for rights to use the patented method. A reasonable royalty is the minimum amount of damages that a patent owner can receive for infringement of a valid claim.

A reasonable royalty is the amount of royalty payment that a patent owner and the infringer would have agreed to in a hypothetical negotiation taking place at a time prior to when the infringement first began. In considering this hypothetical negotiation, you should focus on what the expectations of the patent owner (here, PacBio) and the accused infringer (here, Oxford) would have been had they entered into an agreement at that time, and had they acted reasonably in their negotiations. In determining this, you must assume that both parties believed the patent was valid and infringed and Oxford and PacBio were willing to enter into an agreement.

The relevant date for the hypothetical license negotiation is just before the alleged infringement began in 2017. The reasonable royalty you determine must be a royalty that would have resulted from the hypothetical negotiation, and not simply a royalty the parties would have preferred.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 29, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 25, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623 (modified to address the facts and issues in this case).

8.11. [JOINT] FACTORS FOR DETERMINING A REASONABLE ROYALTY

In determining the reasonable royalty, you should consider all the facts known and available to the parties at the time the infringement began. Some of the kinds of factors that you may consider in making your determination are:

(1) The royalties, if any, received by PacBio for the licensing of the patents-in-suit.

(2) The rates paid by the licensee for the use of other patents comparable to the patents-in-suit. A license agreement need not be perfectly comparable to a hypothetical license that would be negotiated between PacBio and ONT in order for you to consider it. However, if you choose to rely upon evidence from any other license agreements, you must account for economic and technological differences between those licenses and the hypothetically negotiated license between PacBio and ONT.

(3) The nature and scope of the license, such as whether the license is non-exclusive or exclusive, or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.

(4) The utility and advantages of the patented property over the old modes or devices, if any, that had been used for producing similar results.

(5) PacBio's established policy and program to enforce its rights to exclude others form using the patented invention by not licensing others to use the invention or by granting licenses to its patents under special conditions to preserve that exclusivity.

(6) The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.

(7) The portion of the realizable profits that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, or business risks, or significant features or improvements added by the infringer.

(8) The commercial relationship between PacBio and Oxford at the time of the hypothetical negotiation, such as whether they are competitors in the same territory in the same line of business.

(9) The duration of the patent and term of the license.

(10) The established profitability of the products made under the patents, their commercial success, and their popularity.

(11) The nature of the patented inventions, the character of any commercial examples of them as owned and produced by PacBio at the time of the hypothetical negotiation, and the benefits to those who have used the inventions.

(12) The extent to which Oxford has made use of the inventions and any evidence probative of the value of that use.

(13) The opinion testimony of qualified experts.

(14) The amount that a licensor (such as PacBio) and a licensee (such as Oxford) would have agreed upon at the time the infringement began if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

(15) Any other economic factor that a normally prudent businessperson would, under similar circumstances, take into consideration in negotiating the hypothetical license. This may include the availability of commercially acceptable, non-infringing alternatives at the time of the hypothetical negotiation.

No one factor is dispositive and you can and should consider the evidence that has been presented to you in this case on each of these factors.

Authorities:

Plaintiff's Authority: 2018 AIPLA Model Patent Jury Instructions No. 10.2.5.3; *see also* Final Jury Instructions at 30-31, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323; Final Jury Instructions at 26, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719.

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623, p. 67-69 (modified to address the facts and issues in this case).

8.12. [CONTESTED] AVAILABILITY OF NON-INFRINGING ALTERNATIVES

In determining a reasonable royalty, you may also consider evidence concerning the availability during 2017-2019 and cost of non-infringing alternatives to using the patented invention. A non- infringing alternative must be an acceptable product that provides the same advantages as the patented inventions, and does not infringe the patent.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 32, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case).

Defendant's Authority: *Greatbatch Ltd. v. AVX Corp.*, Civ. A. No. 13-cv-723-LPS (D. Del. Jan. 25, 2016), ECF No. 623, p. 70 (modified to address the facts and issues in this case).

9. DELIBERATION AND VERDICT

9.1. [JOINT] DELIBERATIONS AND VERDICT—INTRODUCTION

That concludes the part of my instructions explaining the rules for considering some of the testimony and evidence. Now let me finish by explaining some things about your deliberations in the jury room, and your possible verdicts.

Once you start deliberating, do not talk to the jury officer, or to me, or to anyone else except each other about the case. If you have any questions or messages, you must write them down on a piece of paper, sign them, and then give them to the jury officer. The officer will give them to me, and I will respond as soon as I can. I may have to talk to the lawyers about what you have asked, so it may take me some time to get back to you. Any questions or messages normally should be sent to me through your foreperson.

One more thing about messages. Do not ever write down or tell anyone outside of the jury how you stand on your votes. For example, do not write down or tell anyone that you are split 4-4, or 6-2, or whatever your vote happens to be. That should stay secret until you are finished.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 34, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 28, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

9.2. [JOINT] UNANIMOUS VERDICT

Your verdict must represent the considered judgment of each juror. In order for you as a jury to return a verdict, it is necessary that each juror agree to the verdict. Your verdict must be unanimous.

It is your duty, as jurors, to consult with one another and to deliberate with a view towards reaching an agreement, if you can do so consistent with your individual judgment. Each of you must decide the case for yourself, but do so only after an impartial consideration of the evidence with your fellow jurors. In the course of your deliberations, do not hesitate to reexamine your own views and change your opinion, if convinced it is erroneous. But do not surrender your honest conviction as to the weight or effect of evidence solely because of the opinion of your fellow jurors, or for the purpose of returning a verdict. Remember at all times that you are not partisans. You are judges of the facts. Your sole interest is to seek the truth from the evidence in the case.

A verdict form has been prepared for you. The verdict form asks you a series of questions about the parties' contentions. You will take this form to the jury room and when you have reached unanimous agreement as to your verdict, you will have your foreperson fill in, date, and sign the form. You will then return to the courtroom and your foreperson will give your verdict. Unless you are directed otherwise in the verdict form, you must answer all of the questions posed, and you all must agree on each answer.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 35, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 28, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

9.3. [JOINT] DUTY TO DELIBERATE

Now that all the evidence is in and the arguments are completed, you are free to talk about the case in the jury room. In fact, it is your duty to talk with each other about the evidence and to make every reasonable effort you can to reach a unanimous agreement. Talk with each other, listen carefully and respectfully to each other's views, and keep an open mind as you listen to what your fellow jurors have to say. Try your best to work out your differences. Do not hesitate to change your mind if you are convinced that other jurors are right and your original position was wrong.

But do not ever change your mind just because other jurors see things differently, or just to get the case over with. In the end, your vote must be exactly that—your own vote. It is important for you to reach unanimous agreement, but only if you can do so honestly and in good conscience.

No one will be allowed to hear your discussions in the jury room, and no record will be made of what you say. So you should all feel free to speak your minds.

Listen carefully to what the other jurors have to say, and then decide for yourself.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 36, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 29, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

9.4. [JOINT] SOCIAL MEDIA

During your deliberations, you must not communicate with or provide any information to anyone by any means about this case. You may not use any electronic device or media, such as the telephone, a cell phone, smart phone, iPhone, blackberry or computer, the internet, any internet service, any text or instant messaging service, any internet chat room, blog, or website such as Facebook, Instagram, Snapchat, MySpace, LinkedIn, YouTube, or Twitter, to communicate to anyone any information about this case or to conduct any research about this case until I accept your verdict. In other words, you cannot talk to anyone on the phone, correspond with anyone, or electronically communicate with anyone about this case. You can only discuss the case in the jury room with your fellow jurors during deliberations.

Authority:

Plaintiff's Authority: Final Jury Instructions at 37, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case).

9.5. [JOINT] COURT HAS NO OPINION

Let me finish up by repeating something that I said to you earlier. Nothing that I have said or done during this trial was meant to influence your decision in any way. You must decide the case yourselves based on the evidence presented.

Authorities:

Plaintiff's Authority: Final Jury Instructions at 38, *Amgen, Inc. v. Hospira, Inc.*, Civ. A. No. 15-cv-0839-RGA (D. Del. Sept. 22, 2017), ECF No. 323 (modified to address the facts and issues in this case); Final Jury Instructions at 29, *AVM Techs., LLC v. Intel Corp.*, Civ. A. No. 15-cv-0033-RGA (D. Del. May 8, 2017), ECF No. 719 (modified to address the facts and issues in this case).

FARNAN LLP

/s/ Brian E. Farnan
Brian E. Farnan (#4089)
Michael J. Farnan (#5165)
919 North Market Street, 12th Floor
Wilmington, DE 19801
Telephone: 302-777-0300
Facsimile: 302-777-0301
bfarnan@farnanlaw.com
mfarnan@farnanlaw.com

Edward R. Reines
Derek C. Walter
WEIL, GOTSHAL & MANGES LLP
201 Redwood Shores Parkway
Redwood Shores, CA 94065
(650) 802-3000
edward.reines@weil.com
derek.walter@weil.com

Attorneys for Plaintiff,
Pacific BioSciences of California, Inc.

MORRIS, NICHOLS, ARSHT &TUNNELL LLP

/s/ Jennifer Ying
Jack B. Blumenfeld (#1014)
Jennifer Ying (#5550)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899-1347
(302) 658-9200
jblumenfeld@mnat.com
jying@mnat.com

David G. Wille
Johnson K. Kuncheria
BAKER BOTTS L.L.P.
2001 Ross Avenue
Dallas, TX 75201-2980
(214) 953-6595

Liz Durham Flannery
BAKER BOTTS L.L.P.
910 Louisiana Street
Houston, TX 77002
(713) 229-2104

Attorneys for Defendants,
Oxford Nanopore Technologies, Inc. and
Oxford Nanopore Technologies, Ltd.

March 12, 2020